Item ID:	D3220-042
Revision ID:	
Item Name:	Doubler Assembly

Accept   *N900040100*   Setup Start *NS1*
                                                          Stop *NS2*

Start Date:	3/01/13	**Start Qty:** 2.00	*2*
Required Date: 3/19/13		**Req'd Qty:** 2.00	*2*

Cust Item ID:
Customer:

Reference:

Approvals: **Process Plan:** *MLJ*   **Date:** *13-03-01*   **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3220	B								DAS 05 9-89 13·04·21
100		0.00							
100 Waterjet	FLOW WATER JET					2			
FLOW CNC Waterjet	**Memo**	0.00							
2024 ,050	1-Cut D3220-2 as per Dwg D3220 Dwg Rev: B Prog Rev: B								
	2-Deburr if necessary								
110 *110* QC	QC2- Inspect parts off machine FAI/FAIB	0.00				2			DAS 05 9-89 13·04·21
Quality Control	**Memo**	0.00							

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No

QA Closed: _____ Date: _____

Work Order: _____	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐   Crosstube ☐   Water Jet ☐   Engineering ☐
Machining ☐   Small Fab ☐   Prod. Eng. Coor. ☐   Quality ☐
Thermoforming ☐   Finishing ☐   Rec/Store/Packaging ☐   Other ☐
Large Fab ☐   Composite ☐   Supplier ☐   ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped.	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	_____	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	_____	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions	_____	

Item ID:	D3220-042		Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:						Stop	*NS2*
Item Name:	Doubler Assembly						
Start Date:	3/01/13	Start Qty: 2.00	*2*		Cust Item ID:		
Required Date:	3/19/13	Req'd Qty: 2.00	*2*		Customer:		
Reference:					Run	Start	*NR1*

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00 DAS 16 13/04/22				2			
130 *130* Small Fab Small Fab	Small Fab Memo 1-Deburr 2-C'sink D3220-2 as per Dwg D3220	0.00 0.00				2x			3/01/23
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 27 0.00 13 4 23				2			

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____		
Part No. _____		
NCR No. _____		

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Work Order Update	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐	Bending
☐	Centre Not Concentric to O/S
☐	Cracks
☐	Crushed/Crimped
☐	Cuffs
☐	Heat Treat
☐	Inspection Strip in Tube
☐	Ripples in Bend
☐	Torque Waves in Extrusion
☐	Turning Sequence
☐	Wave/Twist in Tube

General

☐	Bend
☐	BOM/Route
☐	Broken/Damaged
☐	Burrs
☐	Contamination
☐	Countersink
☐	Cut Too Short
☐	Drill Holes
☐	Drawing
☐	Finish
☐	Folio

☐	Grain
☐	Hardware
☐	Inspection Incomplete
☐	Instructions Incomplete/Unclear
☐	Maintenance
☐	Mislabeled
☐	Misread
☐	Offset
☐	Out of Calibration
☐	Out of Sequence
☐	Outside Dimensions

☐	Ovalized
☐	Over/Under tolerance
☐	Part Incorrect
☐	Part Lost/Missing
☐	Part Moved
☐	Positioned Wrong
☐	Power Loss/Surge

☐	Pressure/Forced
☐	Temperature/Cure
☐	Weld
☐	Wrong Stock Pulled
☐	Other

_____
_____
_____

Item ID:	D3220-042			Accept	*N9000040100*	Setup	Start	*NS1*
Revision ID:								
Item Name:	Doubler Assembly						Stop	*NS2*

Start Date:	3/01/13	Start Qty:	2.00	*2*		Cust Item ID:		
Required Date:	3/19/13	Req'd Qty:	2.00	*2*		Customer:		

Reference:

	Run	Start	*NR1*

Approvals: Process Plan: _____   Date: _____   Tooling: _____   Date: _____

| | Stop | *NR2* |

QC: _____   Date: _____   SPC (Y/N): _____   Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				2			TB 13·4·23
160 *160* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				2			13/04/23
170 *170* Small Fab Small Fab	Small Fab Memo Assemble D3220-042 doubler as per Dwg D3220	0.00 0.00				2			13/04/23

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

	DISPOSITION	AGAINST DEPARTMENT/PROCESS
Work Order: _____ Part No. _____ NCR No. _____	Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped.	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		_____
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		_____
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		_____
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Item ID:	D3220-042			Accept	*N9000401 00*	Setup Start	*NS1*

Revision ID:

Item Name: Doubler Assembly

Stop *NS2*

| Start Date: | 3/01/13 | Start Qty: | 2.00 | *2* | | Cust Item ID: | |
| Required Date: | 3/19/13 | Req'd Qty: | 2.00 | *2* | | Customer: | |

Reference:

Run Start *NR1*

Approvals: Process Plan: _____ Date:_____ Tooling: _____ Date:_____

Stop *NR2*

QC: _____ Date:_____ SPC (Y/N): _____ Date:_____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	DAS 27 BY 23			2			
190 *190* Packaging Packaging	Identify as per dwg & Stock Location S177 Memo	0.00 0.00				2.		SP 13-4-24	
200 *200* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00						13/4/25	

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No

QA Closed: Date:

Work Order: _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS				
Part No. _____	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐		
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐		
NCR No. _____	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐			

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID:	97962								
Parent Item:	D3220-042					Start Date: 3/01/13		Required Date: 3/19/13	
Parent Item Name:	Doubler Assembly					Start Qty: 2.00		Required Qty: 2.00	

Comments: IPP Rev:A New Issue   05-11-06 JLM
IPP: B 06.11.15   waterjet   EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.050 2024-T3 .050 sheet		Purchased	No			100	sf	240.0000	0.6926	**1.4581053**		/13·04·21	

Location	Loc Qty	Loc Code
MAT022	240	
124643	240	

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS20426AD3-3 Rivet		Purchased	No			170	Each	7,083.0000	8	16		13/04/23	

Location	Loc Qty	Loc Code
GA	89	
122814	89	
ST316	699	
119109	282	
19099	417	
ST333	6295	
121011	87	
123352	6208	

16

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21059L4 Nutplate		Purchased	No			170	Each	59.0000	4	8		13/04/23	

Location	Loc Qty	Loc Code
ST316	59	
122441	6	
123900	15	
124580	38	

8

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No

QA Closed: _____ Date: _____

	DISPOSITION	AGAINST DEPARTMENT/PROCESS

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION
Rework ☐
Scrap ☐
Use-as-is ☐
Work Order Update ☐

AGAINST DEPARTMENT/PROCESS
Skid-tube ☐   Crosstube ☐   Water Jet ☐   Engineering ☐
Machining ☐   Small Fab ☐   Prod. Eng. Coor. ☐   Quality ☐
Thermoforming ☐   Finishing ☐   Rec/Store/Packaging ☐   Other ☐
Large Fab ☐   Composite ☐   Supplier ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		_____
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		_____
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		_____

DART AEROSPACE LTD				Work Order:	97962
Description: Doubler				Part Number:	D3220-2
Inspection Dwg: D3220 Rev: A BG/1 B03-06					Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

| X | First Article | | Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
5.50	+/-0.030	5.505	✓		V	JKM-01
14.25	+/-0.030	14.25	✓		V	JKM-06
R0.50	+/-0.030	R0.50	✓		V	
7.00	+/-0.030	6.997	✓		V	
7.000	+/-0.005	7.005	✓		V	
1.50	+/-0.030	1.508	✓		V	
1.000	+/-0.005	0.999	✓		V	
0.500	+/-0.005	0.498	✓		V	
1.000	+/-0.005	0.995	✓		V	
Ø0.316	+0.006/-0.001	0.317	✓		V	
Ø0.098	+0.004/-0.001	0.100	✓		V	
0.050 thick	+/-0.005	0.050	✓		V	
Grain Direction	N/A					

Measured by:		Audited by: DAS		Prototype Approval:	N/A
Date:	13-04-21	Date: 16 B/64/72		Date:	N/A

Rev	Date	Change		Revised by	Approved
A	07.09.06	New Issue	P/O D3220-042	KJ/JLM	E

Item	Qty -041	Qty -042	Part Number	Description
1	X		D3220-041	DOUBLER ASSEMBLY
2		X	D3220-042	DOUBLER ASSEMBLY
3	1		D3220-1	DOUBLER
4		1	D3220-2	DOUBLER
5	4	4	MS21059L4	NUTPLATE
6	8	8	MS20426AD3-3	RIVET
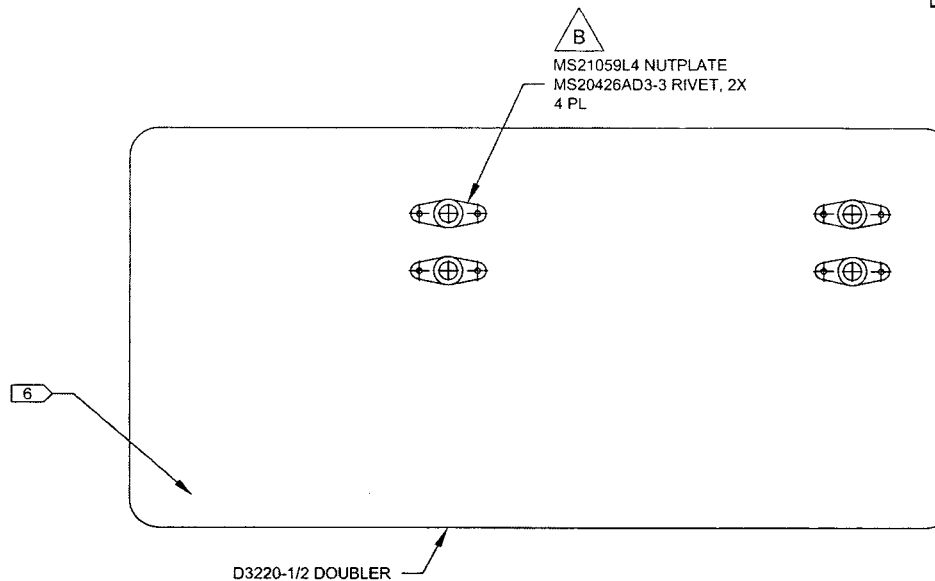
⚠ B
MS21059L4 NUTPLATE
MS20426AD3-3 RIVET, 2X
4 PL

6

D3220-1/2 DOUBLER

D3220-041 DOUBLER ASSEMBLY (SHOWN WITH D3220-1 DOUBLER)
D3220-042 (OPPOSITE)

NOTES:
1) MATERIAL: N/A
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-04X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: D3220-041 = 0.53 lbs
         D3220-042 = 0.53 lbs

	DESCRIPTION		BY	DATE
B	DRAWING UPDATED TO CURRENT STANDARDS. Ø0.316 WAS Ø0.323 (ZN C8-2, B4-3); MS20426AD3-3 WAS MS20426AD3-4 (ZN D4-1); CORRECT TYPO NOTE 1 (ZN A6-2, A8-3); REF PAR 09-025		RF	09.07.08
A	NEW ISSUE		CP	03.10.16
REV.	DESCRIPTION		BY	DATE

		DART AEROSPACE LTD
DESIGN	DS	HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. REV. B
MFG. APPR.		D3220 SHEET 1 OF 4
APPROVED		TITLE SCALE
DE APPR.		DOUBLER NTS
DATE	09.07.08	COPYRIGHT © 2003 BY DART AEROSPACE LTD

9796

14.25

7.000

5.50

Ø0.098
CSK Ø0.180x100°
NEAR SIDE, 8 PL

1.50

1.000

7.00

B

Ø0.316
TYP, 4 PL

GRAIN
DIRECTION
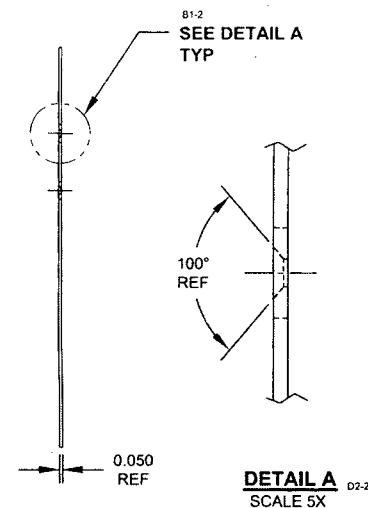
0.500 TYP

1.000 TYP

R0.50
TYP

B1-2
SEE DETAIL A
TYP

100°
REF
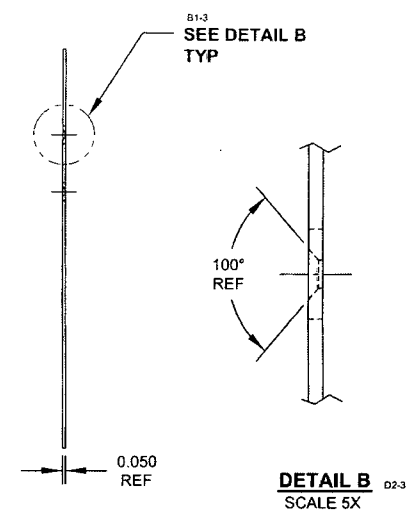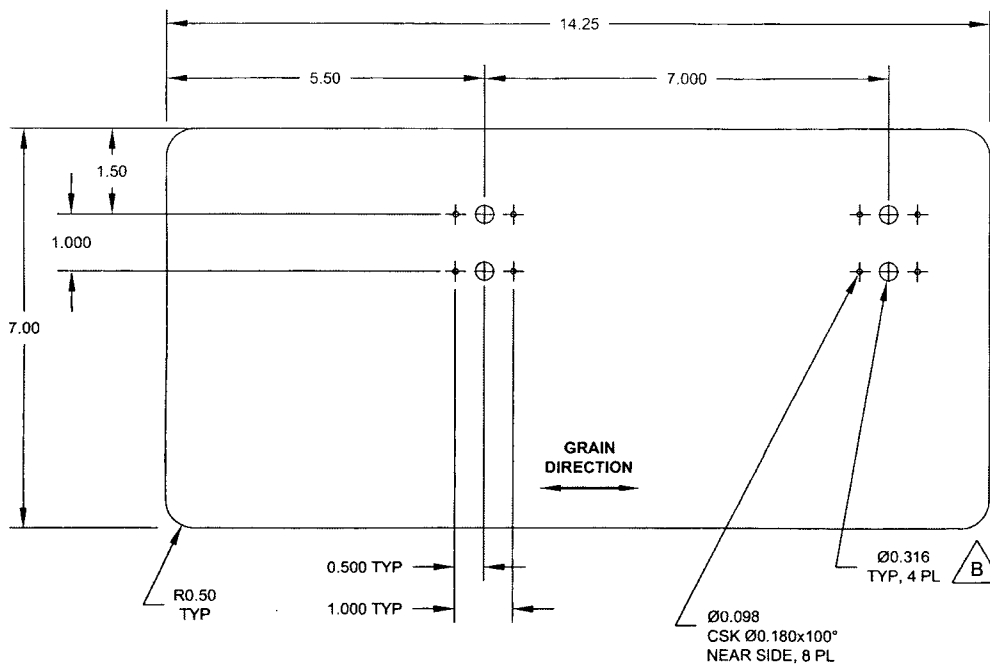
0.050
REF

DETAIL A D2-2
SCALE 5X

D3220-1 DOUBLER

B
NOTES:
1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
    REF DART SPEC. M2024T3S.050
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-1" USING REMOVABLE TAG
7) WEIGHT: 0.50 lbs

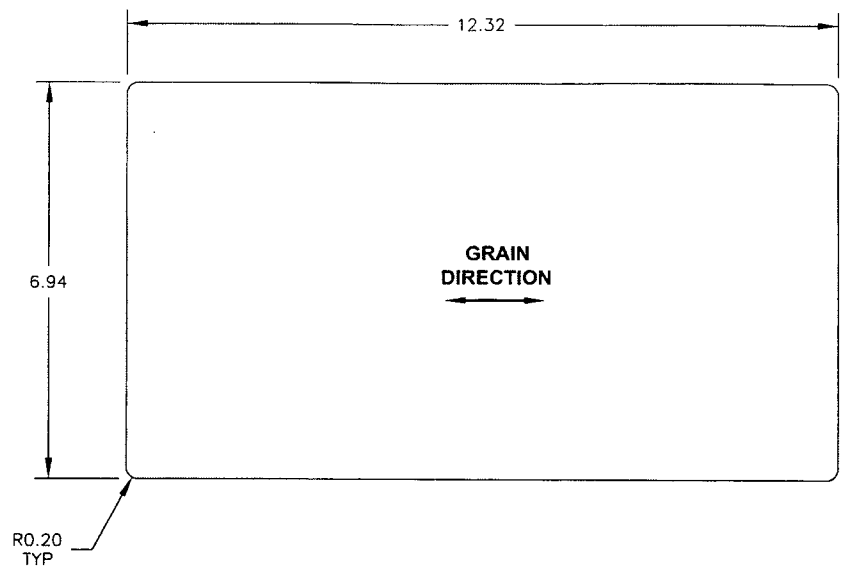| DESIGN	DS	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3220	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		DOUBLER	NTS
DATE	09.07.08	COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

97962

14.25

5.50

7.000

1.50

1.000

7.00

GRAIN
DIRECTION

R0.50
TYP

0.500 TYP

1.000 TYP

Ø0.316
TYP, 4 PL

B

Ø0.098
CSK Ø0.180x100°
NEAR SIDE, 8 PL

D3220-2 DOUBLER

B1-3
SEE DETAIL B
TYP

100°
REF

0.050
REF

DETAIL B D2-3
SCALE 5X

B

NOTES:
1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
    REF DART SPEC. M2024T3S.050
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-2" USING REMOVABLE TAG
7) WEIGHT: 0.50 lbs

DESIGN	DS	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3220	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		DOUBLER	NTS
DATE	09.07.08	COPYRIGHT © 2003 BY DART AEROSPACE LTD	

97962

12.32

6.94

**GRAIN
DIRECTION**

R0.20
TYP

D3220-3 DOUBLER

NOTES:
1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
        REF DART SPEC. M2024T3S.050
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-3" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.43 lbs

DESIGN	DS	**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3220	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		DOUBLER	NTS
DATE	09.07.08	COPYRIGHT © 2003 BY DART AEROSPACE LTD	